CURRENT LISTING OF THE CLAIMS

The following listing of claims represents the current form of the claims and is set forth for ready reference and convenience.

1. [*withdrawn*] A water-based composition for decontamination of chemical and biological toxicants comprising:

one or more oxidants; and

one or more halides.

2. [*withdrawn*] The water-based composition of claim 1, wherein

at least one of the oxidants is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds; and

at least one of the halides is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater.

3. [*withdrawn*] The water-based composition of claims 1 or 2 wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, and the halide(s) are present in a concentration of about 0.1-40% w/v.

4. [*withdrawn*] The water-based composition of claims 1 or 2, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, and the halide(s) are present in a concentration of about 1-20% w/v.

5-7. [*canceled*]

8. [*currently amended*] A composition comprising:

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate; peracetate; percarbonate; hydrogen peroxide; and dioxirane compounds, wherein said oxidants are present in the composition in a concentration range of about 0.1-40% w/v;

one or more halides, at least one of which is selected from the group consisting of an alkali metal and an alkaline earth or transition metal halide salt, wherein said halides are present in the composition in a concentration range of about 0.1-40% w/v;

a buffer selected from the group consisting of alkali metal salt forms of carbonate and bicarbonate, capable of bringing the composition to a pH in the range of about 4 to about 10, wherein said buffer is present in the composition in a concentration range of about 0.05-20% w/v; and

water$_a$

wherein the oxidants, halides and buffers generate significant amounts of hypochlorous acid and hypochlorite species in solution to decontaminate chemical and biological toxicants.

9. [*canceled*]

10. [*previously presented*] The composition of claim 8, having a pH of between about 6 and about 8.5.

11. [*canceled*]

12. [*currently amended*] The composition of claims ~~8, 9~~ or 10, wherein the oxidant(s) are present in the composition in a concentration of about 1-20% w/v, the halide(s) are present in the composition in a concentration of about 1-20% w/v, and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

13. [*currently amended*] The composition of claims ~~8, 9~~ or 10, further comprising one or more cosolvents; and one or more surfactants.

14. [*previously presented*] The composition of claim 13, wherein the oxidant(s) are present in the composition in a concentration of about 1-20% w/v, the halide(s) are present in the composition in a concentration of about 1-20% w/v, the surfactant(s) are present in the composition in a concentration of about 0.01-5% w/v, the co-solvent(s) are present in the composition in a concentration of about 10-80% w/v, and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

15. [*withdrawn*] A water-based composition for decontaminating organosulfur and organophosphorous-containing compounds, and chemical blister and nerve agents comprising:

one or more oxidants; and

one or more halides.

16. [*withdrawn*] The water-based composition of claim 15, wherein

at least one of the oxidants is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds;

and at least one of the halides is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater.

17. [*withdrawn*] The water-based composition of claims 15 or 16 wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, and the halide(s) are present in a concentration of about 0.1-40% w/v.

18. [*withdrawn*] The water-based composition of claims 15 or 16, further comprising

one or more cosolvents, at least one of which is selected from the group consisting of acetonitrile, propylene carbonate, propylene glycol, polypropylene glycol and tert-butanol; and

one or more surfactants, at least one of which is selected from the group consisting of tetrabutylammonium hydrogen sulfate (TBAHS), Triton-X, and cetyltrimethylammonium (CTMA).

19. [*withdrawn*] The water-based composition of claim 18, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, the surfactant(s) are present in a concentration of about 0.01-15% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

20. [*withdrawn*] The water-based composition of claim 18, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

21. [*currently amended*] A composition ~~comprising~~consisting of:

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate; peracetate; percarbonate; hydrogen peroxide; and dioxirane compounds, wherein said oxidants are present in the composition in a concentration range of about 0.1-40% w/v;

one or more halides, at least one of which is selected from the group consisting of an alkali metal and an alkaline earth or transition metal halide salt, wherein said halides are present in the composition in a concentration range of about 3-40% w/v;

a buffer capable of bringing the composition to a pH in the range of about 4 to about 10, wherein said buffer is present in the composition in a concentration range of about 0.05-20% w/v; and

water~~,~~

~~wherein the oxidants, halides and buffers are present in sufficient amounts to generate hypochlorite species in solution~~.

22. [*previously presented*] The composition of claim 21, wherein the buffer is selected from the group consisting of alkali metal salt forms of carbonate and bicarbonate, and phosphate.

23. [*previously presented*] The composition of claim 21, having a pH of between about 6 and about 8.5.

24. [*canceled*]

25. [*previously presented*] The composition of claims 21 or 22, wherein the oxidant(s) are present in the composition in a concentration of about 1-20% w/v, the halide(s) are present in the composition in a concentration of about 3-20% w/v, and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

26. [*canceled*]

27. [*canceled*]

28. [*withdrawn*] A water-based composition for inactivating viruses, bacteria, spores, fungi, and toxins, comprising:

one or more oxidants; and

one or more halides.

29. [*withdrawn*] The water-based composition of claim 28, wherein

at least one of the oxidants is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds; and

at least one of the halides is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater.

30. [*withdrawn*] The water-based composition of claims 28 or 29 wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, and the halide(s) are present in a concentration of about 0.1-40% w/v.

31. [*withdrawn*] The water-based composition of claims 28 or 29 further comprising

one or more cosolvents, at least one of which is selected from the group consisting of acetonitrile, propylene carbonate, propylene glycol, polypropylene glycol and tert-butanol; and

one or more surfactants, at least one of which is selected from the group consisting of tetrabutylammonium hydrogen sulfate (TBAHS), Triton-X, and cetyltrimethylammonium (CTMA).

32. [*withdrawn*] The water-based composition of claim 31, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, the surfactant(s) are present in a concentration of about 0.01-15% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

33. [*withdrawn*] The water-based composition of claim 31, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

34. [*currently amended*] A composition comprising:

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate; peracetate; percarbonate; hydrogen peroxide; and dioxirane compounds, wherein said oxidants are present in the composition in a concentration range of about 0.1-40% w/v;

one or more halides, at least one of which is selected from the group consisting of an alkali metal and an alkaline earth or transition metal halide salt, wherein said halides are present in the composition in a concentration range of about 0.1-40% w/v;

a buffer capable of bringing the composition to a pH in the range of about 6 to about 10, wherein said buffer is present in the composition in a concentration range of about 0.05-20% w/v; and

water,

wherein the oxidants, halides and buffers generate significant amounts of hypochlorous acid and hypochlorite species in solution to decontaminate chemical and biological toxicants.

35. [*previously presented*] The composition of claim 34, wherein the buffer is selected from the group consisting of alkali metal salt forms of carbonate and bicarbonate, and phosphate.

36. [*previously presented*] The composition of claim 34, having a pH of between about 6 and about 8.5.

37. [*canceled*]

38. [*previously presented*] The composition of claims 34 or 35, wherein the oxidant(s) are present in the composition in a concentration of about 1-20% w/v, the halide(s) are present in the composition in a concentration of about 1-20% w/v, and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

39. [*previously presented*] The composition of claims 34, 35 or 36, further comprising one or more cosolvents; and one or more surfactants.

40. [*previously presented*] The composition of claim 39, wherein the oxidant(s) are present in the composition in a concentration of about 1-20% w/v, the halide(s) are present in the composition in a concentration of about 1-20% w/v, the surfactant(s) are present in the composition in a concentration of about 0.01-5% w/v, the co-solvent(s) are present in the composition in a concentration of about 10-80% w/v, and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

41. [*previously presented*] A composition comprising:

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate; peracetate; percarbonate; hydrogen peroxide; and dioxirane compounds, wherein said oxidants are present in the composition in a concentration range of about 0.1-40% w/v;

a buffer selected from the group consisting of alkali metal salt forms of carbonate, capable of bringing the composition to a pH in the range of about 4 to about 10, wherein said buffer is present in the composition in a concentration range of about 0.05-20% w/v; and

sea water.

42. [*previously presented*] The composition of claim 41, further comprising one or more cosolvents; and one or more surfactants.

43. [*previously presented*] The composition of claim 42, wherein the oxidants are present in the composition in a concentration of about 1-20% w/v, the surfactants are present in the composition in a concentration of about 0.01-5% w/v, the co-solvents are present in the composition in a concentration of about 10-80% w/v, and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

44. [*new*] The composition of claim 41, wherein the oxidant(s) are present in the composition in a concentration of about 1-20% w/v and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

45. [*new*] The composition of claim 42, wherein

at least one of the cosolvents is selected from the group consisting of acetonitrile, propylene carbonate, propylene glycol, polypropylene glycol and tert-butanol; and

at least one of the surfactants is selected from the group consisting of tetrabutylammonium hydrogen sulfate (TBAHS), Triton-X, and cetyltrimethylammonium (CTMA).

46. [*new*] A composition consisting of:

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate; peracetate; percarbonate; hydrogen peroxide; and dioxirane compounds, wherein said oxidants are present in the composition in a concentration range of about 0.1-40% w/v;

one or more halides, at least one of which is selected from the group consisting of an alkali metal and an alkaline earth or transition metal halide salt, wherein said halides are present in the composition in a concentration range of about 0.1-40% w/v;

a buffer selected from the group consisting of alkali metal salt forms of carbonate and bicarbonate, capable of bringing the composition to a pH in the range of about 4 to about 10, wherein said buffer is present in the composition in a concentration range of about 0.05-20% w/v;

one or more cosolvents;

one or more surfactants; and

water.

47. [*new*] The composition of claim 46, wherein the oxidant(s) are present in the composition in a concentration of about 1-20% w/v, the halide(s) are present in the composition in a concentration of about 3-20% w/v, the surfactant(s) are present in the composition in a concentration of about 0.01-5% w/v, the co-solvent(s) are present in the composition in a

concentration of about 10-80% w/v, and the buffer is present in the composition in a concentration range of about 0.5-10% w/v.

48. [*new*] The composition of claim 46, wherein

at least one of the cosolvents is selected from the group consisting of acetonitrile, propylene carbonate, propylene glycol, polypropylene glycol and tert-butanol; and

at least one of the surfactants is selected from the group consisting of tetrabutylammonium hydrogen sulfate (TBAHS), Triton-X, and cetyltrimethylammonium (CTMA).